

**Yukon Influenza Surveillance Report**  
**Influenza Season: 2009-2010**  
**Summary Report**  
**FluWatch Week 45 (November 8 - 14, 2009)**

\*\*\*All data are provisional and subject to change as information is received.

Prepared by Yukon Communicable Disease Control  
Report Written: November 20<sup>th</sup>, 2009  
Disseminated: November 20<sup>th</sup>, 2009

**Report Highlights**

This surveillance report produced by YCDC summarizes influenza activity in the Yukon for the 2009-2010 season, including FluWatch week 45 (November 8th - 14th, 2009).

Please note that FluWatch reports are reported one week behind the current date.

2009-2010 FluWatch Weeks Calendar: <http://www.phac-aspc.gc.ca/fluwatch/09-10/09-10cal-eng.php>

Influenza activity level remains high for this time of year. Some Yukon surveillance indicators have shown signs of influenza activity decline since week 43 including: ILI related visits to WGH ER and Flu Assessment Clinic. Other indicators remain elevated such as: percentage of positive results for pH1N1, 811 calls, antiviral prescriptions.

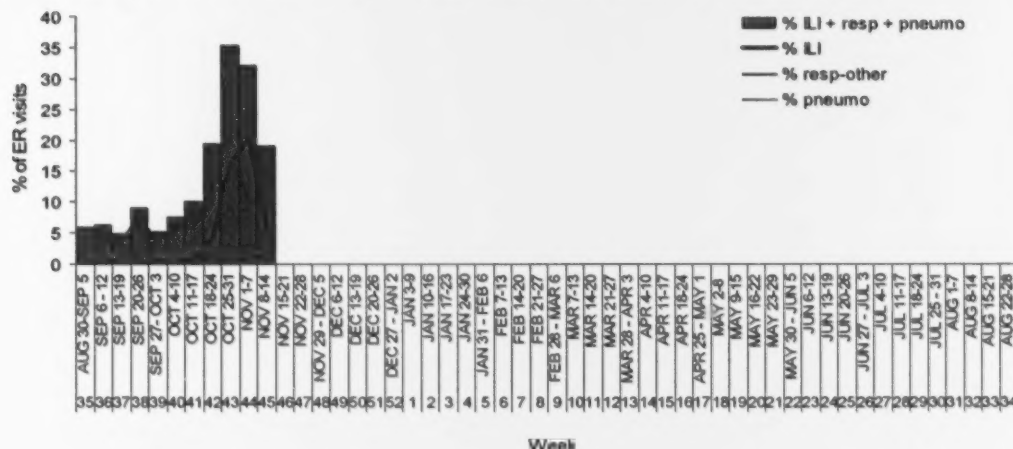
**Pandemic H1N1 (pH1N1) Severe Outcomes**

From October 20th to November 14th 2009, 14 pH1N1 cases in Yukon have been admitted to hospital. Among hospitalized cases 12 of the 14 had at least one risk factor for influenza complications. 3 out of 14 hospitalized cases have been admitted to ICU. Yukon's first pH1N1 related death was November 1<sup>st</sup>, 2009. The death occurred in a female child, underlying medical conditions were present. A second pH1N1 related death occurred November 19th, 2009. This death occurred in an female adult, with no underlying medical conditions.

**Whitehorse General Hospital Emergency Visits**

The percentage of presentations to the WGH emergency department with influenza-like illness (ILI) decreased in week 45. Total number of visits for ILI, other respiratory symptoms, and pneumonia decreased, as did the proportion of these visits of total ER visits. From week 42 through week 44 (Oct 18-Nov 7), the percentage of presentations with ILI increased from 4% to 20%. In week 45, the percentage of presentations with ILI decreased to 6%. The influenza assessment centre was open during weeks 44 and 45.

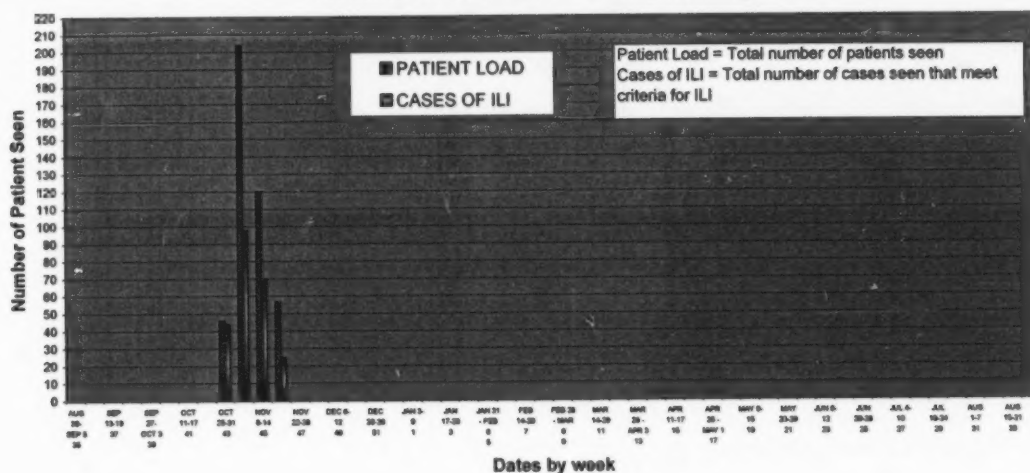
**Percent of WGH ER visits with influenza-like illness (ILI), other respiratory symptoms, or pneumonia by week**



## Influenza Assessment Clinic

This downtown Whitehorse clinic opened its doors on October 30<sup>th</sup>, 2009. The following graph depicts patient volume from October 30<sup>th</sup> to November 19<sup>th</sup>, 2009.

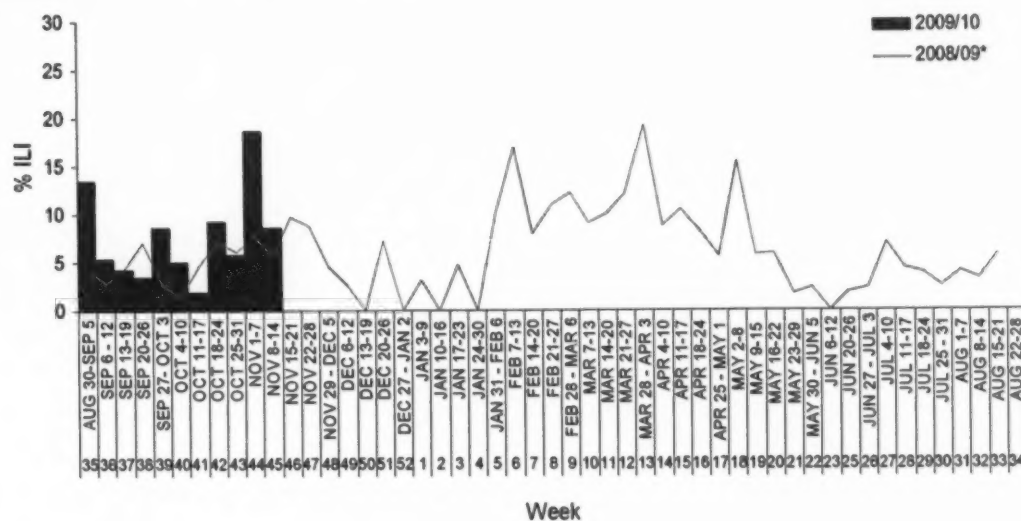
### Influenza Assessment Clinic Daily Tracking



## Sentinel physicians/sites

The percentage of patients presenting to sentinel physicians or sites with ILI increased in week 44 to 18%. The highest proportions of ILI have been seen in the younger age groups (0-19 years).

During the 2008/09 season, an average of five sentinel reports were received each week. A new recruitment of sentinel physicians and sites occurred in July 2009. There are presently 18 sentinel physicians/sites across the territory; 61% of sentinels reported in week 45. Yukon's sentinel surveillance system is comprised of all Community Health Centres and participating physicians. (*FluWatch Sentinel Surveillance Information* <http://www.phac-aspc.gc.ca/fluwatch/sent-eng.php>)



\*2008/09 weeks are slightly different than those shown (following the Sun-Sat weekly pattern).

## FluWatch Reporting

Based on FluWatch activity level definitions, Yukon has reported the following activity levels:

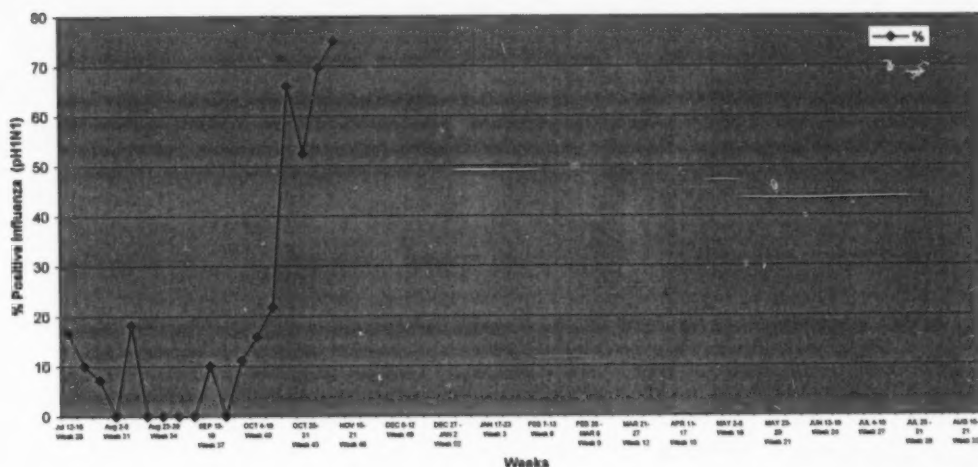
FluWatch activity level definition <http://www.phac-aspc.gc.ca/fluwatch/09-10/def09-10-eng.php>

<b>Week 45</b>	Sporadic: Sporadically occurring ILI and lab confirmed influenza together with no outbreaks detected within the surveillance region.
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## Laboratory Reports

Percentage of respiratory specimens testing positive for influenza A remains high. During week 45, 75% of all respiratory specimens submitted were found to be positive for influenza A. Of positive influenza specimens 100% were subtyped as being pH1N1.

**Percentage of Respiratory Specimens (Submitted for testing in Yukon) Diagnosed Positive for Influenza pH1N1 during weeks 28 - 45**



\*Percent positive in Week 42 may be artificially high as not all data regarding swabs submitted has been received for that week. Data collection is ongoing.

## Communities with Laboratory confirmed pH1N1

Cumulative laboratory information indicates that since April, 2009 Whitehorse and 9 out of 13 surrounding communities have had confirmed pH1N1 case reports. \* please note that this represents cases that have been followed by YCDC to date, follow up of positive cases is ongoing.

## Outbreaks

The influenza outbreak within the Whitehorse Correctional facility was declared over on November 16. The outbreak was contained to fewer than 10 residents who developed symptoms during their stay at the facility or who exhibited symptoms of influenza upon admission. Causative organism of the outbreak was identified as pH1N1.

On November 3<sup>rd</sup>, YCDC became aware of influenza-like illness circulating within the Whitehorse Detox facility.

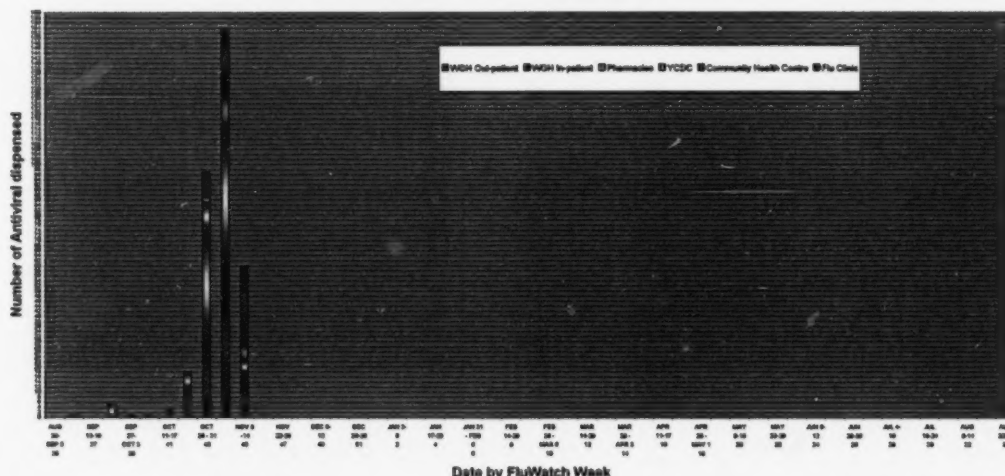
## Schools

During week 45, one community school reported high absenteeism rates. No reports of high absenteeism were received from Whitehorse sentinel surveillance schools.

## Antiviral Prescriptions/Dispensing

Since week 42, there has been a sharp increase in antiviral dispensation in the Territory. The highest number of antivirals were dispensed in week 44, with 154 individuals given antivirals. Antiviral dispensation dropped in week 45; however, data may be incomplete and data collection is ongoing.

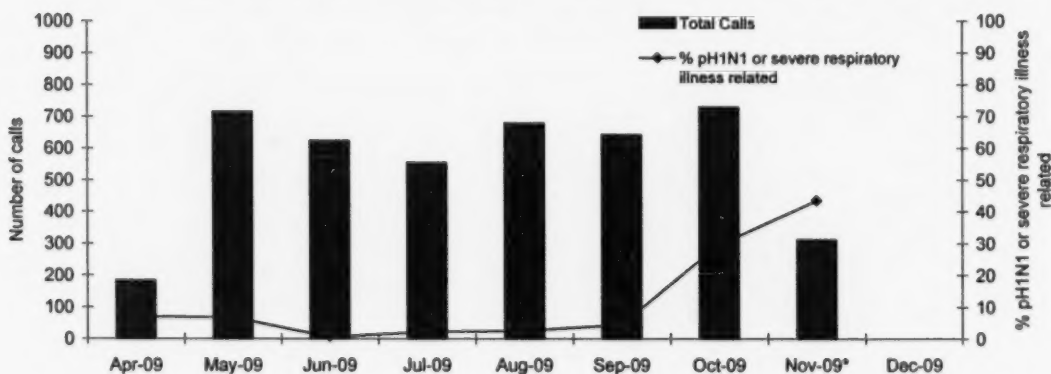
Antiviral Tracking Sheet from Week 35 to present



## HealthLink 811

The percentage of calls related to Influenza A pH1N1 or severe respiratory illness sharply increased in October and November compared to previous months. From November 1 to November 12, 43% of HealthLink 811 calls were related to pH1N1 or severe respiratory illness, with close to 60% of callers requesting information on symptom management and/or guidance.

Number of calls and percentage related to pH1N1 or severe respiratory illness by month



\*Note: November data included are calls from November 1 to November 12. Data collection is ongoing.

Type of pH1N1 or severe respiratory illness related call

	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09*	Dec-09
Triage	69.2	64.6	75.0	50.0	50.0	46.4	50.3	58.5	
Education	30.8	31.3	25.0	50.0	37.5	53.6	49.2	43.0	
Wayfinding	0.0	4.2	0.0	0.0	12.5	0.0	0.5	2.2	

Note: Triage = caller requesting information on symptom management/guidance; Education = caller requesting information about an illness or condition; Wayfinding = caller looking for contact or service directions

During week 44, national influenza activity levels remained elevated. ILI consultation rates decreased slightly from 111 to 99 consultations per 1000 patient visits; this is above the expected range for this time of year. People under 20 had the highest consultation rates. The proportion of tests positive for influenza was 38.1%, similar compared to the previous week. 99.8% of all subtyped influenza A specimens were positive for pH1N1; 10 specimens were positive for H3N2 and none were positive for seasonal H1N1. Two were positive for influenza B. Geographically BC, Alberta Saskatchewan, Ontario, Nova Scotia, Newfoundland and Prince Edward Island reported widespread activity. [www.phac-aspc.gc.ca/fluwatch/](http://www.phac-aspc.gc.ca/fluwatch/)

### **National Microbiology Laboratory**

Between September 1st and November 12, 2009, 72 influenza isolates were collected from provincial and hospital labs and characterized at the National Microbiology Laboratory (NML):

70 A/California/07/2009 (H1N1)-like§ from AB, ON, SASK, BC, NT, & NU;

1 A/Brisbane/59/2007(H1N1)-like† from AB;

1 B/Brisbane/60/2008-like† from ON

§ A/California/07/2009 (H1N1) is the variant reference virus (pH1N1) selected by WHO for a pandemic influenza A/H1N1 vaccine.

† indicates a strain match to the 2009-10 vaccine

### **Antiviral Resistance**

Drug susceptibility testing at the NML between September 1st and November 12th, 2009 indicated that most pH1N1 (n=67) isolates were sensitive to oseltamivir, 2 viruses were resistant. All influenza B isolates (n=1) and influenza A/H3N2 isolates tested were sensitive and the one seasonal A/H1N1 isolate tested was resistant. All pH1N1 (n=70), seasonal H1N1(n=1), A/H3N2 (n=1) and influenza B (n=1) isolates were sensitive to zanamivir. All pH1N1 (n=62), seasonal H1N1(n=1) and A/H3N2 (n=3) isolates were resistant to amantadine.

Global surveillance has shown that circulating pH1N1 viruses are resistant to amantadine but remain sensitive to zanamivir and oseltamivir, although sporadic cases of oseltamivir resistance have been observed worldwide.

### **International**

decreased slightly. 30.1% of respiratory specimens tested in reference laboratories in week 44 were positive for influenza, and 100% percent of the subtyped influenza A viruses were pH1N1. 0.5% of specimens tested positive for Influenza B. The proportion of sentinel physician visits for ILI decreased to 6.7%, this is above the seasonal peak for last year. The proportion of deaths attributed to pneumonia and influenza was at the epidemic threshold. In Europe for the week ending November 13 influenza activity continued to increase. Seven countries reported a very high or high activity, and 20 reported an increasing trend. 43% of sentinel laboratory samples were positive for influenza, and 100% of specimens positive for influenza A were pH1N1. (<http://www.eiss.org>)

**Southern Hemisphere:** Many countries in the Southern Hemisphere previously reporting severe winter influenza activity have now passed the peak. Notably Australia, influenza activity is continuing to decrease with most jurisdictions reporting activity at or near baseline levels. In New Zealand pH1N1 activity continues to decline; consultations with sentinel physicians have declined from the peak in early July, and are now approaching baseline levels. In Chile, ILI activity is within the range expected for this time of year. In South Africa cases are also declining, but pH1N1 remains the dominant subtype. Previously, in June and July of this year the dominant subtype was A/H3N2.

## Pandemic H1N1 Influenza Web Sites

Yukon H&SS     *Yukon Health and Social Services:* <http://www.hss.gov.yk.ca/>  
PHAC:           [www.phac-aspc.gc.ca/alert-alerte/swine\\_200904-eng.php](http://www.phac-aspc.gc.ca/alert-alerte/swine_200904-eng.php)  
BCCDC:         [www.bccdc.ca/dis-cond/a-z/h/HumanSwineFlu/default.htm](http://www.bccdc.ca/dis-cond/a-z/h/HumanSwineFlu/default.htm)  
<http://www.health.gov.bc.ca/pandemic/response/index.html>  
US CDC:       [www.cdc.gov/swineflu/index.htm](http://www.cdc.gov/swineflu/index.htm)  
WHO:           [www.who.int/csr/disease/swineflu/en/index.html](http://www.who.int/csr/disease/swineflu/en/index.html)

## Acronyms

ILI: Influenza-Like Illness

pH1N1: Pandemic H1N1 influenza or swine origin influenza

WHO: World Health Organization



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